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PROCUREMENT SECTION
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Cotton Fiber and Processing Test Results

CROP of 1971



Consumer and Marketing Service
U.S. DEPARTMENT OF AGRICULTURE
Memphis, Tenn. 38117 February 4, 1972

This is the thirteenth, and last, report on fiber and processing test results on the 1971 cotton crop. These reports were issued twice each month during the harvesting season, and will be summarized in a comprehensive report to be issued in early spring. This 1971 group of reports gives data on the same subject as "Summary of Cotton Fiber and Processing Test Results, Crop of 1970", March 1971. These reports are published by the Standardization Section, Cotton Division, Consumer and Marketing Service, U. S. Department of Agriculture, P. O. Box 17723, Memphis, TN 38117.

COTTON FIBER AND PROCESSING TEST RESULTS, CROP OF 1971

Discussion of Test Results

Cotton testing laboratories of the Consumer and Marketing Service, USDA, report that fibers from Southwestern short staple samples tested through January 28, 1972 are finer and weaker than through the end of the season last year. Shirley Analyzer nonlint content and picker and card waste are higher. Yarns spun from these samples are weaker with more imperfections. Average spinning potential yarn number is lower.

Averages for all medium staple samples tested to date show a weaker zero gage fiber strength while 1/8-inch gage is the same as through the end of the season last year. Yarns spun from these samples show higher appearance grades with more imperfections.

Medium staple samples from the Southeast are weaker than last season. Yarns spun from these samples show higher appearance grades with more imperfections.

Medium staple samples from the Southwest are shorter, show less fiber uniformity, are finer and weaker than through the end of last season. Shirley Analyzer nonlint content is higher. Yarns spun from these samples are weaker and show more imperfections. Average spinning potential yarn number is lower.

No additional South Central or Western medium staple samples were received during this report period.

Averages for all long staple samples tested to date show less uniform, finer and weaker fibers than a year ago. Shirley Analyzer nonlint content is lower while picker and card waste is higher. Yarns spun from these samples are weaker with higher appearance grades and fewer imperfections.

Long staple samples from the West are shorter, finer and weaker at 1/8-inch gage fiber strength than last season. Shirley Analyzer nonlint content is lower while picker and card waste and comber waste are higher. Yarns spun from these samples are weaker with higher appearance grades and fewer imperfections. Average spinning potential yarn number is higher.

No additional Southeastern or South Central long staple samples were received during this report period.

No additional extra long staple, American Upland, samples were received during this report period.

Extra long staple, American Pima, samples from the West are shorter, coarser and weaker than last season. Shirley Analyzer nonlint content is lower while picker and card waste is higher. Yarns spun from these samples are weaker than last year.

Table 1.--Cotton:

Averages of fiber and processing tests from selected gin points in the United States through January 28, 1972
 1/ (Continued)

Staple group, Area, and Crop year	Lots	Fiber Test Results						Processing Test Results					
		Span	Length	Strength		SA Non- lint	P&C Waste	Comber Waste	Yarn Quality		Strength	Appearance	Imprfctns
				Mike Zero gage	1/8" gage				Carded	Combed			
Long Staple:	No.	In.	Pct.	Rdg.	Mpsi	G/tx	Pct.	Pct.	Lbs.	Lbs.	22s Carded	22s Combed	Yarn No.
Southeast	14 16	1.14 1.14	45 43	4.7 4.3	82 79	23 22	4.5 4.2	8.6 9.7	18.5 17.2	109 102	122 118	103 109	21 22
1970 1971													11 10
South Central	6 3	1.16 1.22	42 43	4.6 4.5	85 83	24 24	4.5 5.3	9.2 9.6	20.0 16.4	102 113	124 130	93 107	26 20
1970 1971													10 9
West	20 15	1.18 1.16	45 44	3.7 3.5	92 92	27 25	3.5 2.4	8.2 8.8	16.0 17.3	134 127	152 146	86 95	43 103
1970 1971													70 77
U. S. Average	40 34	1.16 1.16	45 43	4.2 4.0	87 85	25 24	4.0 3.5	8.5 9.3	17.5 17.2	120 114	137 131	93 103	26 27
1970 1971													75 77
50's Combed Yarn													
Extra Long Staple:													
West	3 2	1.41 1.41	32 30	3.8 4.0	112 105	35 30	2.5 2.0	7.7 8.2	18.2 16.0	71 66	103 100	7 10	
1970 1971													
American Upland													
West	18 24	1.48 1.45	31 31	3.6 3.8	100 99	34 33	3.5 2.7	8.0 8.5	17.7 17.6	70 65	110 112	4 4	
1970 1971													
Significant Difference 2/	0.02	2	0.2	2	1	0.5	0.5	0.5	4 (22s)	4 (22s)	5	5	2
									2 (50s)	2 (50s)	5	5	2
											3		

1/ Based on a limited number of samples of modal quality
 2/ Minimum differences considered to be significant for comparisons in this table. These guides are based upon averages of a number of lots and are not applicable to individual samples.

Table 1.-Cotton:

Averages of fiber and processing tests from selected gin points in the United States through January 28, 1972

Staple group Area, and Crop year	Lots tested	No.	Fiber test results						Processing test results						
			Fibrograph		Mike fine- ness		Fiber strength		S A nonlint gage		P & C waste		Yarn quality		
			2.5% span	50/2.5 unif.	Zero gage	1/8" gage	gage	gage	str.	str.	Skein str.	Appear- ance	Imperf- ections	22s Index	Carded Yarn No.
Short Staple:															
Southwest															
1970	63	0.94	46	4.3	86	21	3.2	6.0	93	114	29	43			
1971	65	0.95	45	3.8	79	20	4.4	7.2	86	112	40	37			
Medium Staple:															
Southeast															
1970	83	1.07	45	4.4	83	23	3.6	6.7	102	101	18	60			
1971	68	1.08	45	4.4	79	22	3.4	6.6	99	109	20	61			
South Central															
1970	171	1.09	45	4.5	82	22	3.2	6.2	102	106	22	61			
1971	142	1.10	44	4.3	81	22	3.0	5.9	103	112	20	62			
Southwest															
1970	66	1.06	46	4.2	87	23	3.2	6.3	106	113	29	62			
1971	46	1.04	44	4.0	84	22	3.8	6.5	102	113	35	55			
West															
1970	70	1.10	45	4.2	93	25	2.7	5.7	118	113	25	70			
1971	60	1.12	45	4.2	92	25	2.7	5.3	121	120	24	70			
U. S. Average															
1970	390	1.08	45	4.4	85	23	3.2	6.2	106	107	21	63			
1971	316	1.09	44	4.3	83	23	3.1	6.0	105	113	23	62			
Significant difference 2/			0.02	2	0.2	2	1	0.5	0.5	4(22s)	5	2	3		

1/ Based on a limited number of samples of modal quality
 2/ Minimum differences considered to be significant for comparisons in this table. These guides are based upon averages of a number of lots and are not applicable to individual samples.

Table 2 --Cotton, American upland short staple: quality characteristics by production areas, crop of 1971

Production Area, Classification		Fiber Test Results								Processing Test Results - Carded Yarns														
		Digital Fibrograph		Fiber Strength		Elongation 1/8"		S.A. Color		Strength		Elongation		Appearance Index		Imperfect's								
Sample Number	Grade	2.5% span	Unif. Stple span	Mike. Zero Gage	1/8" Gage	Non-lint Gage	Raw Stock Yel	P & C Waste	8s or 22s or 74 tx	8s or 22s or 74 tx	8s or 22s or 74 tx	8s or 22s or 74 tx	8s or 22s or 74 tx	8s or 22s or 74 tx	No	No	Spin Potential							
No	Name & Code	32s	In	Pct	Rdg	Mpsi	Gtex	Pct	Pct	No	Pct	Lbs	Pct	Pct	No	No	No							
SOUTHWEST NORTHWEST TEXAS																								
		ANSON	2 LM LT SP	1/52	30	0.97	44	3.7	76	19	8.6	4.0	4	4	8.8	281	82	8.7	7.6	110	70	120	69	33
		BIG SPRING	3 SLM LT SP	42	30	0.97	44	2.9	80	20	6.7	4.1	3	4	9.5	PERCENT	87	7.6	6.6	110	110	70	44	39
		HAMILIN	2 SLM LT SP	42	30	0.97	44	3.6	73	18	8.6	3.3	4	4	6.1	282	87	8.3	7.3	120	110	59	35	40
			3 LM LT SP	1/52	30	0.98	43	3.0	73	19	8.3	4.8	4	4	7.7	297	85	9.1	7.6	110	100	87	52	36
		LAMESA	3 SLM LT SP	2/42	29	0.88	44	3.1	77	19	7.6	3.4	3	4	6.6	302	89	8.0	7.2	120	110	69	39	35
		LOCKNEY	3 SLM LT SP	2/42	30	0.91	42	2.7	79	20	7.0	4.3	3	4	6.5	294	85	7.3	6.3	100	70	146	97	33
		MULESHOE	3 LM LT SP	1/52	30	0.87	46	3.1	82	22	7.0	5.5	4	4	8.4	308	90	7.2	6.6	120	110	60	43	32
		PADUCAH	2 SLM SP	43	31	0.99	45	3.2	76	20	8.5	3.4	5	5	6.5	303	90	7.2	6.6	110	90	121	69	45
		PLAINVIEW	3 LM LT SP	1/52	30	0.91	44	2.8	80	19	6.6	7.2	4	4	9.4	291	87	7.2	6.3	120	110	95	57	32
		RULE	3 LM LT SP	1/52	33	1.06	44	3.7	76	21	7.6	4.0	3	4	6.3	316	92	8.1	7.6	120	110	71	40	42

Table 2 --Cotton, American upland short staple: Quality characteristics by production areas, crop of 1971--(Continued)

Production Area, Classification		Fiber Test Results								Processing Test Results - Carded Yarns																
Sample Number	Grade	Digital Fibrograph		Mike, Strength		Elong- gat'n 1/8"		S.A. Non- lint		Color Raw Stock Waste		P & C 8s or 22s or 27 tx		Strength 74 tx		Elongation		Appearance Index		Imperfect'n's 8s or 22s or 27 tx		Spin. Poten- tial				
		Staple span	2.5% span	Unif	Zero Gage	1/8" Gage	Mosi	G/tex	Pct	Pct	No	No	Pct	No	Pct	Pct	No	No	No	No	No	No	No	No		
SOUTHWEST--(Continued) NORTHWEST TEXAS--(Continued)																										
TULIA	2 LM LT SP	1/52	29	0.88	44	2.9	80	STRIPPER	31	90 PERCENT	4	4	7.6	290	85	7.2	6.2	120	120	56	38	31	31	36	25	
	3 LM LT SP	1/52	29	0.86	44	2.9	78	19	6.8	4.8	4	4	8.1	292	84	6.7	5.9	120	110	55	36	31	31	36	25	
OKLAHOMA																										
ALTUS	2 SLM LT SP	42	31	1.00	46	4.1	77	LANKART	57	100 PERCENT	4	4	5.7	312	91	7.9	6.7	130	130	28	18	43	43	43	43	
SAYRE	2 SLM LT SP	42	30	0.95	45	2.9	81	LANKART	611	70 PERCENT	3	3	7.2	313	95	7.2	6.5	110	100	59	37	43	43	43	43	
SNYDER	2 SLM LT SP	42	31	0.99	45	4.1	78	LANKART	57	100 PERCENT	3	4	5.4	306	90	7.5	6.7	130	120	45	27	43	43	43	43	
NEW MEXICO																										
CAUSEY	3 LM LT SP	1/52	29	0.88	46	3.0	85	GREGG	35	75 PERCENT	3	3	8.3	301	91	6.6	6.3	110	110	104	58	33	33	33	33	

1/ Reduced from 42 because of bark

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1971

Production Area, Classification & Sample Number		Fiber Test Results								Processing Test Results - Carded Yarns							
		Digital Fibrograph		Fiber Strength		S.A. Non-Lint		Color		Strength		Elongation		Appearance Index		Imperfect ns	
No	Grade	Staple	2.5% span	Unif.	Mike Zero Gage	1/8" Gage	Gra. Yel	Raw Stock	P & C Waste	22s or 50s or 27 tex	22s or 50s or 27 tex	50s or 27 tex	22s or 50s or 27 tex	22s or 50s or 27 tex	No	No	Spin. Potential
32s	In	Pct	Rdg.		Mpsi	G/tex	Pct	No	No	Pct	Lbs	Pct	No	No	No	No	No
SOUTHEASTERN																	
NORTH-CAROLINA																	
PINEVILLE	2 LM LT SP	52	35	1.12	45	4.1	81	TH-149	5.4	4.1	5	3	100 PERCENT	34	5.9	4.6	120
SOUTHWEST																100	20
NORTHWEST TEXAS																	13
LUBBUCK	3 LM LT SP	1/52	30	0.97	45	2.8	80	PAYMASTER	111	7.6	5.3	4	4	75 PERCENT	30	6.4	4.5
O'DUNNELL	3 LM LT SP	1/52	30	0.97	44	2.7	80	PAYMASTER	111	7.7	6.0	4	4	80 PERCENT	32	6.8	5.8
RAYLAND	2 SLM LT SP	42	33	1.06	47	4.0	86	LOCKETT	4789-A	6.4	3.4	4	4	100 PERCENT	35	6.5	4.1
ROPEVILLE	3 SLM SP	43	30	0.97	43	2.6	78	LOCKETT	4789-A	8.2	3.8	4	5	100 PERCENT	31	7.3	5.4
SEMINOLE	3 LM SP	3/53	30	0.99	41	2.4	77	PAYMASTER	111	8.5	5.6	5	6	80 PERCENT	33	7.3	5.4
VERNON	2 SLM LT SP	42	34	1.07	47	3.8	86	LOCKETT	BXL	6.7	3.8	3	3	100 PERCENT	38	6.2	4.5
																	60
																	146
																	111
																	43

1/ Reduced from 42 because of bark
 2/ Would not spin 50's, spun 44's
 3/ Reduced from 43 because of bark

Table 4. --Cotton, American upland long staple: Quality characteristics by production areas, crop of 1971

1/ 100 percent selected for tests, less than 100 percent in the area

* Comber Waste and Combed Yarn Data

Table 5 --Cotton, American Pima extra long staple: Quality characteristics by production areas, crop of 1971

Production Area, Classification & Sample Number		Fiber Test Results								Processing Test Results - Combed Yarns								
		Array Length		Fiber Strength		S.A. Non- Lint		Color		Strength		Elongation		Appearance Index		Imperfect's		
No	Grade	Stple	UQJ	CV	Mike	Zero Gage	1/8" Gage	Gra	Yel	P & C Waste	Comber Waste	50s or 12 tx	80s or 7 tx	50s or 12 tx	80s or 7 tx	50s or 12 tx	80s or 7 tx	
32s	32s	In	In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Pct	Lbs	Lbs	No	No	
WESTERN																		
ARIZONA																		
4	SAFFORD	5	44	1.045	28	4.00	103	35	7.9	2.7	4	5	8.2	16.0	67	35	5.7	5.2
WEST TEXAS																		
4	EL PASO	5	44	1.039	33	3.1	100	32	7.2	4.4	5	6	9.8	18.9	64	35	5.9	5.2
4	EL PASO	4	44	1.045	31	3.5	102	33	7.3	1.7	3	6	8.1	18.1	64	35	6.0	5.2
100 PERCENT*																		
PIMA S-4																		
4	SAFFORD	5	44	1.045	28	4.00	103	35	7.9	2.7	4	5	8.2	16.0	67	35	5.7	5.2
4	EL PASO	5	44	1.039	33	3.1	100	32	7.2	4.4	5	6	9.8	18.9	64	35	5.9	5.2
4	EL PASO	4	44	1.045	31	3.5	102	33	7.3	1.7	3	6	8.1	18.1	64	35	6.0	5.2

* 100 percent selected for tests, less than 100 percent in the area